

Please amend the claims as follows (this listing of claims replaces all prior versions and listings):

Listing of Claims:

1. (Currently Amended) A method for allocating channels, comprising:
receiving a message having a format that is in compliance with a communication standard;
determining ~~[[a]]~~ the communication standard used by ~~[[a]]~~ the received message;
determining available channels; and
allocating a channel based on the available channels and the communication standard used by the received message.
2. (Original) The method of claim 1 further comprising:
sending an instruction to use the channel.
3. (Currently Amended) The method of claim 2, wherein sending comprises sending an instruction to a software-defined signal processing system to allocate the appropriate channel for the received message.
4. (Original) The method of claim 1, wherein the spectrum of channels includes a channel dedicated to AMPS.
5. (Currently Amended) The method of claim 1, wherein the received message is a call.
6. (Currently Amended) The method of claim 1, wherein the received message is a ~~received~~ message that is received through an antenna.

7. (Currently Amended) The method of claim 1, ~~wherein~~ further comprising processing the received message is being processed for transmission.

8. (Currently Amended) Apparatus for allocating channels, comprising:
a memory that stores executable instruction signals; and
a processor that executes the instruction signals to:
receive a message having a format that is in compliance with a communication standard;
determine [[a]] the communication standard used by [[a]] the received message;
determine available channels; and
allocate a channel based on the available channels and the communication standard used by the received message.

9. (Original) The apparatus of claim 8 further comprising instructions to:
send a notification to use the channel.

10. (Currently Amended) The apparatus of claim 9, wherein to send an instruction comprises sending an instruction to a software-defined signal processing system to allocate the appropriate channel for the received message.

11. (Original) The apparatus of claim 8, wherein the spectrum of channels includes a channel dedicated to AMPS.

12. (Currently Amended) The apparatus of claim 8, wherein the received message is a call.

13. (Currently Amended) The apparatus of claim 8, wherein the received message is a ~~received~~ message that is received through an antenna.

14. (Currently Amended) The apparatus of claim 8, wherein the processor processes the received message ~~is being processed~~ for transmission.

15. (Currently Amended) An article comprising a machine-readable medium that stores executable instruction signals allocating channels, the instruction signals causing a machine to:
receive a message having a format that is in compliance with a communication standard;
determine ~~[[a]]~~ the communication standard used by ~~[[a]]~~ the received message;
determine available channels; and
allocate a channel based on the available channels and the communication standard used by the received message.

16. (Original) The article of claim 15, further comprising instruction signals causing a machine to:
send notification to use the channel.

17. (Currently Amended) The article of claim 16, wherein to send notification comprises sending an instruction to a software-defined signal processing system to allocate the appropriate channel for the received message.

18. (Original) The article of claim 15, wherein the spectrum of channels includes a channel dedicated to AMPS.

19. (Currently Amended) The article of claim 15, wherein the received message is a call.

20. (Currently Amended) The article of claim 15, wherein the received message is a ~~received~~ message that is received through an antenna.

21. (Currently Amended) The article of claim 15, wherein the instruction signals cause the machine to process the received message ~~is being processed~~ for transmission.

22. (Currently Amended) A software-defined signal processing system, comprising:
a ~~controller~~;
a set of primary servers, each server ~~includes~~ including software required to execute for executing a communications standard, at least two different primary servers including software for executing different communication standards; and
a back-up server that supports the set of primary servers in case of failure;
wherein the back-up server is configured to perform the functions of a failed server from the set of primary servers when the failed server fails.

23. (Original) The system of claim 22, wherein each primary server includes objects, network connections and memory buffers that mirror the primary server.

24. (New) The apparatus of claim 8, wherein the processor sends an instruction to allocate a channel dedicated to the communication standard for communicating with a mobile device that sent the message.

25. (New) The apparatus of claim 24, wherein the processor sends an instruction to a software-defined signal processing device to send another message to the mobile device to use the allocated channel.

26. (New) The apparatus of claim 8, wherein the communication standard comprises at least one of advance mobile phone service (AMPS), global system for mobile communications

(GSM), code division multiple access (CDMA), enhanced data rates for GSM evolution (EDGE) and wideband code division multiple access (WCDMA) standard.

27. (New) The apparatus of claim 8, wherein the processor receives messages having formats that are in compliance with communication standards, at least some of different messages complying with different communication standards, and the processor allocates channels dedicated to the communication standards associated with the messages.

28. (New) The apparatus of claim 8, wherein the processor receives messages having formats that are in compliance with communication standards, at least some of different messages complying with different communication standards, and the processor dynamically responds to the messages to utilize spectrum according to a current usage pattern.

29. (New) The apparatus of claim 8, wherein the processor determines frequencies licensed to a user of the message.

30. (New) The apparatus of claim 29, wherein the processor chooses from a list of available channels a channel that meets at least one of the frequency requirement and a bandwidth requirement.

31. (New) The apparatus of claim 30, wherein the processor sends an instruction to a software-defined signal processing device to send another message to a mobile device to use the allocated channel.

32. (New) The apparatus of claim 8, wherein the received message comprises a short-message, text, a housekeeping signal, or intended consumer signals.

33. (New) The apparatus of claim 14, wherein the message comprises a broadcast.

34. (New) The apparatus of claim 33, wherein the processor sends an instruction to allocate a channel dedicated to the communication standard for communicating with a mobile device that receives the broadcast.

35. (New) The apparatus of claim 33, wherein the processor sends an instruction to a software-defined signal processing device to send another message to the mobile device to use the allocated channel.

36. (New) The system of claim 22, wherein each backup server pre-allocates resources needed to mirror the processing of any of the set of primary servers.

37. (New) A software-defined signal processing system, comprising:
a controller;
a set of primary servers each including software for executing a communication standard, at least two different servers including software for executing different communication standards; and
a set of back-up servers to support the set of primary servers in case of failure, each back-up server configured to perform the functions of any one of the primary servers that fails and execute the communication standard associated with the failed primary server;
wherein each of the primary servers is initially associated with one of the back-up servers, and when one of the back-up servers is activated to provide back-up service for a failed server, the controller reallocates each of the functional primary servers assigned to the activated back-up server to a different back-up server.